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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,557	06/24/2003	Thomas A. Makowski	5150-81100	1251

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EXAMINER
PHAM, CHRYSTINE

ART UNIT	PAPER NUMBER
2192	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/602,557	MAKOWSKI ET AL.
	Examiner	Art Unit	
	Chrystine Pham	2192	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>24 June 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-25</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-25</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on <u>24 June 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>11/30/2004</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

This action is responsive to application 10/602557 filed on June 24, 2003. Claims 1-25

are presented for examination. Priority date of May 16, 2003 has been considered.

Specification

The disclosure is objected to because of the following informalities: The provisional

application being referenced in lines 1-2 of page 1 does not have the proper serial or

application number. Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed

to non-statutory subject matter.

Claim 1

Merely recited as "carrier medium comprising program instructions ...", the claim does

not limit the carrier medium (i.e., signal) to a statutory manufacture. Furthermore, at

least page 14 of the Specification discloses the carrier medium as comprising signals

such as electrical, electromagnetic, or digital signals, conveyed via a communication

medium such as a bus, network and/or a wireless link. Claims that recite nothing but

the physical characteristics of a form of energy, such as a frequency, voltage, or the

strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in Sec. 101. First, a claimed signal is clearly not a "process" under Sec. 101 because it is not a series of steps. The other three Sec. 101 classes of machine, compositions of matter and manufactures "relate to structural entities and can be grouped as `product' claims in order to contrast them with process claims." 1 D. Chisum, Patents Sec. 1.02 (1994). The three product classes have traditionally required physical structure or material. "The term machine includes every mechanical device or combination of mechanical device or combination of mechanical powers and devices to perform some function and produce a certain effect or result." Corning v. Burden, 56 U.S. (15 How.) 252, 267 (1854). A modern definition of machine would no doubt include electronic devices which perform functions. Indeed, devices such as flip-flops and computers are referred to in computer science as sequential machines. A claimed signal has no physical structure, does not itself perform any useful, concrete and tangible result and, thus, does not fit within the definition of a machine. See Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, Annex IV (c)
<http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>

Claims 2-18

Claims are rejected because they fail to remedy the deficiency of base claim 1.

Claim 19

Merely recited as "graphical program node palette, comprising...", the palette is limited to nonfunctional descriptive material per se. Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). When nonfunctional descriptive material is recorded on some computer-readable medium, in a computer or on an electromagnetic carrier signal, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored in a computer-readable medium, in a computer, on an electromagnetic carrier signal does not make it statutory. See Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, Annex IV (a)

<http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>

Claims 20-21

Claims are rejected because they fail to remedy the deficiency of base claim 19.

Claims 22-23

Recite the same "carrier medium", which has been addressed in claim 1, therefore, are

rejected for the same reasons as cited in claim 1.

Claims 24-25

Recite the same "palette ... comprising...", which has been addressed in claim 19,

therefore, are rejected for the same reasons as cited in claim 19.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form

the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-10, 12-13 and 15-25 are rejected under 35 U.S.C. 102(e) as being anticipated

by Zink et al. (US 6,738,964 B1, "Zink").

Claim 1

Zink teaches a carrier medium comprising program instructions, wherein the program

instructions are executable to implement (see at least FIGS.4-5 & associated text):

displaying a display window comprising a plurality of graphical program nodes for use in

a graphical program (see at least *602, 603* FIG.6 & associated text); wherein the

plurality of graphical program nodes comprise a hierarchy of graphical program nodes,

wherein said hierarchy comprises: a first plurality of function nodes displayed in the

display window, wherein each function node corresponds to a respective functionality

(see at least *602, 603* FIG.6 & associated text; col.4:12-23; col.11:52-60); and a second

plurality of property nodes (see at least col.11:60-67) displayed in the display window,

wherein each property node corresponds to a respective one of at least a subset of the

plurality of function nodes (see at least *1502* FIG.13 & associated text; col.12:52-

col.13:7; col.13:57-col.14:1), wherein each property node is displayed proximate to said

respective one of the at least a subset of the plurality of function nodes (see at least

col.15:45-50; FIG.17B & associated text).

Claim 2

The rejection of base claim 1 is incorporated. Zink further teaches wherein each of the

first plurality of function nodes comprises a polymorphic function node; and wherein

each polymorphic function node corresponds to a respective generic functionality,

wherein each function node is type-switchable between each of a plurality of function

node types, and wherein each function node type corresponds to a respective specific

functionality (see at least *602* FIG.6 & associated text; col.4:12-16).

Claim 3

The rejection of base claim 2 is incorporated. Zink further teaches wherein each of the first plurality of function nodes has a default function node type, and wherein the default function node type corresponds to a respective default specific functionality for the function node (see at least col.15:55-60).

Claim 4

The rejection of base claim 1 is incorporated. Zink further teaches wherein the first plurality of function nodes are organized in the display window in accordance with one or more of: order of use in a typical graphical program development session; frequency of use in a typical graphical program development session; and functional relationships among the first plurality of function nodes (see at least *603* FIG.6 & associated text; col.4:17-20).

Claim 5

The rejection of base claim 1 is incorporated. Zink further teaches wherein the first plurality of function nodes comprises two or more of: a channel creation node; a read node; and a write node (see at least col.4:13-24; col.4:64-col.5:5).

Claim 6

The rejection of base claim 5 is incorporated. Zink further teaches wherein the first

plurality of function nodes further comprises: a wait until done node (see at least

col.4:13-24; col.4:64-col.5:5).

Claim 7

The rejection of base claim 5 is incorporated. Zink further teaches wherein the two or

more of the channel creation node, the read node, and the write node comprise a

primary set of function nodes (see at least col.4:13-24; col.4:64-col.5:5).

Claim 8

The rejection of base claim 7 is incorporated. Zink further teaches wherein the first

plurality of function nodes further comprises one or more of: a timing node; a triggering

node; a start node; a stop node; and a clear node (see at least col.4:13-24; col.4:64-

col.5:5).

Claim 9

The rejection of base claim 8 is incorporated. Zink further teaches wherein the one or

more of the timing node, the triggering node, the start node, the stop node, and the

clear node comprise a secondary set of function nodes; and wherein the primary set of

function nodes and the secondary set of function nodes are displayed in the display

window in respective groups (see at least *602, 603* FIG.6 & associated text).

Claim 10

The rejection of base claim 9 is incorporated. Zink further teaches wherein, in displaying the primary set of function nodes and the secondary set of function nodes in the display window in respective groups, the primary set of function nodes is displayed in a first row in the display window and the secondary set of function nodes is displayed in a second row in the display window (see at least *602, 603* FIG.6 & associated text).

Claim 12

The rejection of base claim 1 is incorporated. Zink further teaches wherein each of the second plurality of property nodes comprises a function specific property node corresponding to a respective function; and wherein each function specific property node comprises one or more parameters for configuring corresponding attributes for the graphical program (see at least *1502* FIG.13 & associated text; col.12:52-col.13:7; col.13:57-col.14:1; col.15:45-50; FIG.17B & associated text).

Claim 13

The rejection of base claim 12 is incorporated. Zink further teaches wherein the second plurality of property nodes comprises two or more of: a channel property node; a timing property node; a triggering property node; a read property node; and a write property node (see at least *1502* FIG.13 & associated text; col.12:52-col.13:7; col.13:57-col.14:1; col.15:45-50; FIG.17B & associated text).

Claim 15

The rejection of base claim 1 is incorporated. Zink further teaches wherein each

function node comprises a function node icon, and wherein the function node icon

comprises a first image; wherein each property node comprises a property node icon

and wherein the function node icon comprises a second image; and wherein the second

image comprises a version of the first image, indicating the correspondence between

the property node and the corresponding function node (see at least *1502* FIG.13 &

associated text; col.12:52-col.13:7; col.13:57-col.14:1; col.15:45-50; FIG.17B &

associated text; FIG.6 & associated text)

Claim 16

The rejection of base claim 1 is incorporated. Zink further teaches wherein the program

instructions are further executable to implement: displaying one or more tool icons in the

display window, wherein each tool icon represents a respective graphical program

development tool, and wherein each tool icon is user-selectable to invoke the respective

graphical program development tool (see at least FIG.6 & associated text).

Claim 17

The rejection of base claim 1 is incorporated. Zink further teaches wherein the program

instructions are further executable to implement: displaying one or more function palette

icons in the display window, wherein each function palette icon represents a respective

sub-palette of one or more additional function nodes and/or one or more additional

function palettes (see at least FIG.6 & associated text).

Claim 18

The rejection of base claim 17 is incorporated. Zink further teaches wherein the one or

more function palette icons are user-selectable to invoke display of one or more of: a

palette of function nodes related to advanced device configuration; a palette of function

nodes related to advanced task configuration; and a palette of one or more additional

sub-palettes comprising miscellaneous advanced function nodes (see at least col.11:52-

60).

Claim 19

Claim recites a graphical program node palette comprising the elements already

addressed in claim 1, therefore, is rejected for the same reasons as cited in claim 1.

Claims 20-25

Claims recite limitations, which have been addressed in claims 1-2, 5, and 12-13,

therefore, are rejected for the same reasons as cited in claims 1-2, 5, and 12-13.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zink

in view of Kellerman et al. (US 6,750,887 B1, "Kellerman").

Claim 14

The rejection of base claim 13 is incorporated. Zink further teaches wherein, in each

property node being displayed proximate to the respective one of the at least a subset

of the plurality of function nodes, each property node is displayed in one of: a common

row with the respective one of the at least a subset of the plurality of function nodes

(see at least *1502* FIG.13 & associated text; col.12:52-col.13:7; col.13:57-col.14:1;

col.15:45-50; FIG.17B & associated text). Zink does not expressly disclose and a

common column with the respective one of the at least a subset of the plurality of

function nodes. However, Kellerman teaches a method for managing a construction or

creation of graphical user interface wherein each property node is displayed in one of a

common row with the respective one of the at least a subset of the plurality of function

nodes and common column with the respective one of the at least a subset of the

plurality of function nodes (see at least col.4:8-50; FIG.1 & associated text). Zink and

Kellerman are analogous art because they are both directed to programming GUIs. It

would have been obvious to one of ordinary skill in the pertinent art at the time the

invention was made to incorporate the teaching of Kellerman into that of Zink for the

inclusion of a "column" (as an alternative order of displaying nodes). And the motivation

for doing so would have been to address the problem of laying out (i.e., organizing and

displaying) visual components (graphical nodes) of a GUI in a pleasing arrangement

with minimum developer effort (see at least Kellerman col.3:35-52).

Claim 11

The rejection of base claim 9 is incorporated. Claim recites limitations, which have

been addressed in claims 9 and 14, therefore, is rejected for the same reasons as cited
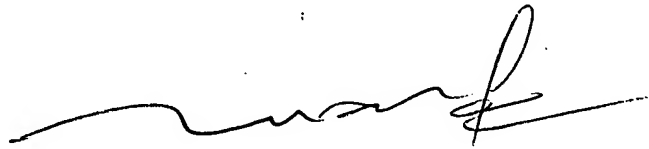
in claims 9 and 14.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chrystine Pham whose telephone number is 571-272-

3702. The examiner can normally be reached on Mon-Fri, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tuan Q. Dam can be reached on 571-272-3695. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TUAN DAM
SUPERVISORY PATENT EXAMINER